

FILE NOTATIONS

Entered in-NLD File
Location Map Pinned
Card Indexed
✓

Checked by Chief
Approval Letter
Disapproval Letter
10-9-73

COMPLETION DATA:

Date Well Completed 1-1-74

DW..... WW..... TA.....

GW..... OS..... PA.....

Location Inspected

Bond released

State or Fee Land

LOGS FILED

Driller's Log.....

Electronic logs (No.)

..... I..... Dual I Lat..... GR-N..... Micro.....

ERG Sonic GR..... Lat..... Mi-L..... Sonic.....

CBLog..... CCLog..... Others.....

From: Pat Brotherton

Rock Springs, Wyoming

To: T. M. Colson

September 24, 1973

Tentative Plan to Drill
Lockerby Well No. 1
San Juan County, Utah

This well will be drilled to total depth by the _____ Drilling Company. One work order has been originated for the drilling and completion of the well, namely 21593-2, Drill Lockerby Well No. 1. This well is located in the NE SW Sec. 16, T. 34 S., R. 26 E., San Juan County, Utah. The well will be drilled to a total depth of 6150 feet to test the Paradox formation. Surface elevation is at 6779 feet.

1. Drill a 13-3/4-inch hole to approximately 470 feet KBM.
2. Run and cement approximately 450 feet of 10-3/4-inch O.D., 32.75-pound, H-40, 8 round thread, ST&C casing. The casing will be cemented with 370 sacks of regular Type "G" cement which represents theoretical requirements plus 100 percent excess cement for 10-3/4-inch O.D. casing in 13-3/4-inch hole with cement returned to the surface. Cement will be treated with 1692 pounds of Dowell D43A. Plan on leaving a 20 foot cement plug in the bottom of the casing after displacement is completed. Floating equipment will consist of a Baker guide shoe. The top and bottom of all casing collars and the guide shoe will be spot welded in the field. The bottom of the surface casing should be landed in such a manner that the top of the 10-inch 3000 psi casing flange will be at ground level. A cellar 3 feet deep will be required. Prior to cementing, circulate 75 barrels of mud. Capacity of the 10-3/4-inch O.D. casing is 45 barrels.
3. After a WOC time of 6 hours, remove landing joint. Install a NSCo. Type B 10-inch 3000 psi regular duty casing flange tapped for 10-3/4-inch O.D., 8 round thread casing. Install a 2-inch extra heavy nipple, 6-inches long, and a WKM Figure B138 (2000 psi WOG, 4000 psi test) valve on one side of the

casing flange and a 2-inch extra heavy bull plug in the opposite side.

Install adequate preventers. After a WOC time of 12 hours, pressure test surface casing and all preventer rams to 1000 psi for 15 minutes using rig pump and mud. The burst pressure rating for the 10-3/4-inch O.D. casing is 1820 psi.

4. Drill a 9-7/8-inch hole to a tentative depth of 3000 feet. An air or air mist system will be used. A fully manned logging unit will be used from surface casing to total depth. The logging unit will catch 10 foot samples from surface casing to total depth. The mud system, after the well has been mudded up at 3000 feet, will consist of properties adequate to allow the running of drill stem tests. The mud weight should be held as low as practical. Six drill stem tests are anticipated starting at approximately 4290 feet. Anticipated tops are as follows:

	<u>Approximate Depth</u> <u>(Feet KBM)</u>
Mancos - Dakota	Surface
Morrison	270
Summerville	620
Curtis	840
Entrada	935
Carmel	1,080
Navajo	1,115
Kayenta	1,465
Wingate	1,590
Chinle	1,850
Shinarump	2,450
Moenkopi	2,510
Cutler	2,590
Honaker Trail	4,290
Paradox	4,820
Upper Ismay	5,380
Lower Ismay	5,590
"B" Marker	5,720
Desert Creek	5,785
Salt	5,920
Total Depth	6,150

5. After reaching a depth of 3000 feet, fill hole with 9 pound per gallon mud with lost circulation material. If the hole fills without any lost circulation, reduce the hole size to 7-7/8-inches and proceed to Step 11.
6. Run a dual induction laterolog (2-inch linear, 5-inch logarithmic) and integrated borehole compensated gamma ray sonic caliper log from surface casing to total depth.
7. Go in hole to total depth with 9-7/8-inch bit and condition hole prior to running 8-5/8-inch O.D. casing. Pull bit laying down drill collars. The mud weight should not exceed 9.5 ppg prior to running the 8-5/8-inch O.D. casing.
8. Rams will not be changed in the ram type preventer since the Hydril preventer will be on the wellhead. Run 8-5/8-inch O.D. casing as follows:

(Top of String in Well)

- A. 2970 feet 8-5/8-inch O.D., 32-pound, K-55, Hydril flush joint (FJ-P) casing.
- B. One Baker Type "G" float collar.
- C. One joint 8-5/8-inch O.D., 32-pound, K-55, Hydril flush joint (FJ-P) casing.
- D. One Baker guide shoe.

Cement casing with sufficient regular Type "G" cement in order to bring the cement level outside the 8-5/8-inch O.D. casing 1000 feet above the bottom of the casing or above any potential producing zones. The float shoe, shoe joint, float collar, and the next four joints of casing will be locked together in the field at the time the casing is being run using Halliburton thread locking compound. Touch bottom and pick the casing up one foot. Circulate 225 barrels of drilling mud prior to beginning cementing operations. Capacity of the 8-5/8-inch O.D. casing is approximately 189 barrels. Rotate casing while circulating, mixing, and displacing cement. Displace cement with mud.

9. Immediately after cementing operations are completed, land the 8-5/8-inch O.D. casing with full weight of casing on slips and record indicator weight. Cut the 8-5/8-inch O.D. casing off and install a 10-inch 3000 psi by 10-inch 3000 psi NSCo. casing spool with 2-inch WKM 3000 psi wing valves. Pressure test seals to 1500 psi for 5 minutes. The collapse pressure for 8-5/8-inch O.D., 32-pound, K-55 casing is 2740 psi. Install a 10-inch 3000 psi preventer with blind rams in bottom and 4-1/2-inch rams in top, a Hydril preventer, and finish nipping up.
10. After a WOC time of 24 hours, pressure test casing and all preventer rams to 1000 psi for 15 minutes using rig pump and mud. The internal pressure rating for 8-5/8-inch O.D., 32-pound, K-55 casing is 3930 psi.
11. Go in hole with 7-7/8-inch bit and adequate drill collars. Drill ahead to total depth of 6150 feet or to such other depth as may be recommended by the Geological Department.
12. Run a dual induction laterolog (with 2-inch linear, 5-inch logarithmic) integrated sonic gamma ray caliper log from the bottom of the 8-5/8-inch O.D. casing to total depth and a sidewall neutron porosity gamma ray log from 4290 feet to total depth. Note: Check salt content of the mud to determine if the logging program should be changed.
13. Assuming commercial quantities of gas and/or oil are present, go into hole with a 7-7/8-inch bit and condition hole prior to running 4-1/2-inch O.D. casing. Pull and lay down drill pipe and drill collars.
14. Run 4-1/2-inch O.D. casing as follows:
(Top of String in Well)
 - A. 6100 feet 4-1/2-inch O.D., 11.6-pound, K-55, 8 round thread, ST&C casing.
 - B. One Larkin filrite float collar.
 - C. One joint 4-1/2-inch O.D., 11.6-pound, K-55, 8 round thread, ST&C casing.
 - D. One Larkin filrite float shoe.

Run the casing to bottom and pick up one foot. The casing will be cemented with 50-50 Pozmix cement. Cement requirements will be the actual volume as calculated from the caliper log plus 20 percent excess. Circulate 150 barrels mud prior to beginning cementing operations. Capacity of the 4-1/2-inch O.D. casing is 94 barrels. Rotate casing while circulating, mixing, and displacing cement. Displace cement with water.

15. Immediately after cementing operations are completed, land the 4-1/2-inch O.D. casing with full weight of casing on slips and record indicator weight. Cut off the 4-1/2-inch O.D. casing and install a NSCo. Type "B" 10-inch 3000 psi by 6-inch 3000 psi tubing spool. Pressure test seals to 2000 psi for 5 minutes. The collapse pressure for 4-1/2-inch O.D., 11.6-pound, K-55 casing is 4540 psi. Install a steel plate over the tubing spool and release drilling rig.
16. Rig up a contract workover rig. Install a 6-inch 5000 psi double gate preventer with blind rams in bottom and 2-3/8-inch rams in top.
17. Rig up Dresser Atlas and run a cement bond and PFC log from plugged back depth to top of cement behind the 4-1/2-inch O.D. casing.
18. Pick up a 3-3/4-inch bit and run on 2-3/8-inch O.D., 4.6-pound, J-55 seal lock tubing to plugged back depth. Using Halliburton pump truck and water, pressure test casing and pipe rams to 3000 psi for 15 minutes. The minimum internal yield for 4-1/2-inch O.D., 11.6-pound, K-55 casing is 5350 psi and the wellhead is 3000 psi WOG, 6000 psi test. Land the tubing on a H-1 tubing hanger. Pressure test blind rams to 3000 psi for 15 minutes. Pull tubing, standing same in derrick.
19. After the above items have been evaluated, a tentative plan to complete the well will be finalized.

GENERAL INFORMATION

I. The following tubular goods have been assigned to the well.

<u>Description</u>	<u>Approximate Gross Measurement (feet)</u>	<u>Availability</u>
	<u>Surface Casing</u>	
10-3/4-inch O.D., 48-pound, H-40, 8 round thread, ST&C casing	480	To be purchased
	<u>Intermediate Casing</u>	
8-5/8-inch O.D., 32-pound, K-55 Hydril flush joint casing	3,200	To be purchased
	<u>Production Casing</u>	
4-1/2-inch O.D., 11.6-pound, K-55, 8 round thread, ST&C casing	6,300	To be purchased
	<u>Production Tubing</u>	
2-3/8-inch O.D., 4.6-pound, J-55 seal lock tubing	6,300	To be purchased

II. The salt content of the mud will be checked prior to cementing the 4-1/2-inch O.D. casing to determine if a salt saturated cement will be required.

III. All ram type preventers will have hand wheels installed and operative at the time the preventers are installed.

IV. Well responsibility: O. C. Adams

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL & GAS

SUBMIT IN TRIPLICATE*
(Other instructions on
reverse side)

JMB

5. Lease Designation and Serial No.

ML - 27096

6. If Indian, Allottee or Tribe Name

-

7. Unit Agreement Name

-

8. Farm or Lease Name

Lockerby

9. Well No.

1

10. Field and Pool, or Wildcat

Wildcat

11. Sec., T., R., M., or Blk.
and Survey or Area

NE SW 16-34S-26E., SLB&M

12. County or Parrish 13. State

San Juan Utah

1a. Type of Work

DRILL ☒DEEPEN ☐PLUG BACK ☐

b. Type of Well

Oil Well ☐Gas Well ☒

Other

Single Zone ☐Multiple Zone ☐

2. Name of Operator

Mountain Fuel Supply Company

3. Address of Operator

P. O. Box 1129, Rock Springs, Wyoming 82901

4. Location of Well (Report location clearly and in accordance with any State requirements.*)

At surface

2097' FSL, 2067' FWL NE SW

At proposed prod. zone

14. Distance in miles and direction from nearest town or post office*

15 miles southeast of Monticello, Utah

15. Distance from proposed*

location to nearest
property or lease line, ft.
(Also to nearest drlg. line, if any)

543'

16. No. of acres in lease

1880

17. No. of acres assigned
to this well

-

18. Distance from proposed location*
to nearest well, drilling, completed,
or applied for, on this lease, ft.

-

19. Proposed depth

6150'

20. Rotary or cable tools

Rotary

21. Elevations (Show whether DF, RT, GR, etc.)

GR 6779'

22. Approx. date work will start*

November 1, 1973

23.

PROPOSED CASING AND CEMENTING PROGRAM

Size of Hole	Size of Casing	Weight per Foot	Setting Depth	Quantity of Cement
13-3/4	10-3/4	32.75	450	370
9-7/8	8-5/8	32	3000	to be determined
7-7/8	4-1/2	11.6	to be determined	

We would like to drill the subject well to an estimated depth of 6150', anticipated formation tops are as follows: Mancos-Dakota at the surface, Morrison at 270', Summerville at 620', Curtis at 840', Entrada at 935', Carmel at 1080', Navajo at 1115', Kayenta at 1465', Wingate at 1590', Chinle at 1850', Shinarump at 2450', Moenkopi at 2510', Cutler at 2590', Honaker Trail at 4290', Paradox at 4820', Upper Ismay at 5380', Lower Ismay at 5590', "B" Marker at 5720', Desert Creek at 5785', and salt at 5920'.

Blow out preventers will be checked daily and mud will be adequate to contain formation fluids.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.

Vice President,
Gas Supply Operations

Signed

BW Croft

Title

Date

Oct. 4, 1973

(This space for Federal or State office use)

Permit No.

43-037-30130

Approval Date

Approved by

Title

Date

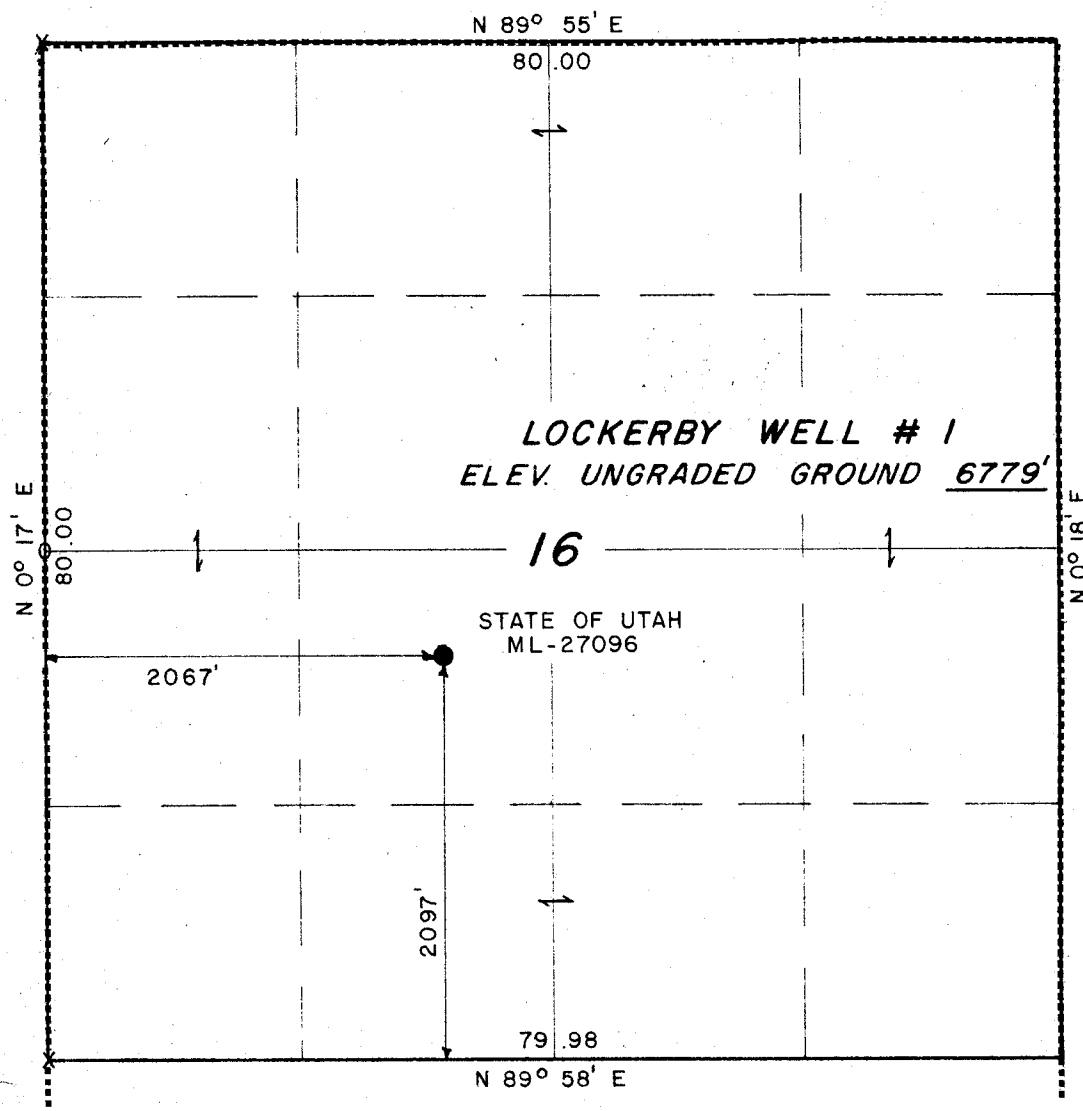
Conditions of approval, if any:

T34S, R26E, S.L.B.&M.

PROJECT

MOUNTAIN FUEL SUPPLY COMPANY

Well location, LOCKERBY WELL
1, located as shown in the
NE 1/4 SW 1/4, Section 16, T34S,
R26E, S.L.B.&M., San Juan
County, Utah.



O = Re-established Corner
X = Bearing Trees Located.

W.O. 21593



CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM
FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY
SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE
BEST OF MY KNOWLEDGE AND BELIEF.

REGISTERED LAND SURVEYOR
REGISTRATION NO. 3154
STATE OF UTAH

UINTAH ENGINEERING & LAND SURVEYING
P.O. BOX Q - 110 EAST FIRST SOUTH
VERNAL, UTAH - 84078

SCALE	1" = 1000'	DATE	14 September, 1973
PARTY	DH DP	REFERENCES	GLO Plat
WEATHER	Warm	FILE	M-11263 Mountain Fuel

Schematic - Not drawn to scale.

Drilled by MFSCO - 1973

Well temporarily abandoned 1-1-74

Present Status Drawing

Lockerby Well No. 1

Sec. 16, T34S, R26E

San Juan County, Utah

Drawn by - CRO - 12-20-73

Revised - CRO - 1-2-74

KB 6792.50

G.L. 6779'

10 3/4" Surface Casing

1 10" 3000 psi NSCo Type B csg flange	1.62
13 jts 10 3/4" OD, 32.75", H-40, 8rd thd ST&C Casing	393.36
1 Baker guide shoe	.90
Total	395.88'

Above casing landed at 411.00' KB or 15.12' below KB.
Circulated same for 25 minutes. Cntd w/ 320 ex's
Class 'A' cnt treated with 1693# D43A. Plug down
2:00 p.m. 11-12-73. Returned 10 barrels slurry to pit.

8 5/8" OD Intermediate Casing

1 pc 8 5/8" OD, 32.0", K-55, 8rd thd ST&C csg	22.39
6 jts 8 5/8" OD, 32.0", K-55, 8rd thd ST&C csg	189.14
12 jts 8 5/8" OD, 32.0", K-55, 8rd thd ST&C csg w/ turned down collars	369.00
1 jts 8 5/8" OD, 8rd crossover box to 8 5/8" OD hydnll flush jt	1.45
50 jts 8 5/8" OD, 32.0", K-55, flush jt hydnll csg	2,083.83
1 Baker model C float collar	1.97
1 jt 8 5/8" OD, 32.0", K-55, 8rd thd ST&C csg	30.59
1 Baker guide shoe	0.90
Total	2,699.50

Above csg was landed at 2714.62' KBM or 15.12'
below KB. in a NSCo 10" 3000 psi csg flange.

Casing was run in air drilled hole and not mudded
up before running csg. Circulated capacity of csg
w/ rig water before cnting, no returns. Cntd
w/ 210 sx Class A cnt treated w/ 1/4" floccal per
sx. Did not rotate last 20 bbls. Set csg with full
indicator wt of 90,000# on slips.

4 1/2" OD Production Casing

Ran 190 jts 4 1/2" OD, 10.5", K-55, ST&C
casing. Landed at 6049' KB. Cemented with
350 sx 50-50 Pozmix w/ 1777# salt. Rotated
casing throughout. Cut off csg & land w/
indicator weight of 50,000#.

2 3/8" OD Production Tubing

1 NSCo H-1 tubing hanger	0.56
1 2 3/8" OD seal lock by 8rd EUE change nipple	0.33
181 jts 2 3/8" OD, 4.6", J-55 seal lock tbg	5611.24
1 shop made closing tool	0.83
	5612.96

Above tubing landed at 5623.01' KB or 10.05' below KB.
in a 6" 3000 psi type 'B' tbg spool.

10 3/4" csg at 411.0 KB

cnt top 1500' KB

8 5/8" csg at 2714.62' KB

cnt top 4500' KB

2 3/8" OD tbg landed at 5623.01' KB

Baker model 'N' Bridge plug at 5735' KBM

Perfs 5758-5782' KB 2 HRF hyper-jet shots

Baker Model 'NC' Bridge plug at 5860' KBM

Perfs 5878-5886' KB 2 HRF hyper-jet shots

Perfs 5974-5990' KB 2 HRF hyper-jet shots

Perfs 6008-6022' KB 2 HRF hyper-jet shots

All perforations measured from DA sidewall neutron
correlated to Schlumberger cement bond log

4 1/2" OD csg landed at 6049' KB

TD drilled 7 3/8" hole to 6050' KB

October 9, 1973

Mountain Fuel Supply Company
Box 1129
Rock Springs, Wyoming 82901

Re: Well No. Lockerby State #1
Sec. 16, T. 34 S, R. 26 E,
San Juan County, Utah

Gentlemen:

Insofar as this office is concerned, approval to drill the above referred to well is hereby granted in accordance with the General Rules and Regulations and Rules of Practice and Procedure.

Should you determine that it will be necessary to plug and abandon this well, you are hereby requested to immediately notify the following:

PAUL W. BURCHELL - Chief Petroleum Engineer
HOME: 277-2890
OFFICE: 329-5771

Enclosed please find Form OGC-8-X, which is to be completed whether or not water sands (aquifers) are encountered during drilling. Your cooperation relative to the above will be greatly appreciated.

The API number assigned to this well is 43-037-30130.

Very truly yours,

DIVISION OF OIL & GAS CONSERVATION

CLEON B. FEIGHT
DIRECTOR

CBF:sd
cc: Division of State Lands

4

JB

INTEROFFICE COMMUNICATION

R. G. MYERS

FROM R. G. Myers

Rock Springs, Wyoming

CITY

STATE

TO B. W. Croft


DATE October 12, 1973

SUBJECT Tentative Plan to Drill
Lockerby Well No. 1
San Juan County, Utah

Attached for your information and files is a tentative plan to drill the above-captioned well. This plan was written in accordance with the Geologic Prognosis dated September 11, 1973.

RGM/gm

Attachment

cc: J. T. Simon
L. A. Hale (6)
J. E. Adney
Geology (2)
D. E. Dallas (4)
C. F. Rosene
B. M. Steigleder
E. A. Farmer
U.S.G.S.
State 
Paul Zubatch
P. E. Files (4)

FORM OGC-8-X
FILE IN QUADRUPLICATE

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS CONSERVATION
1588 West North Temple
Salt Lake City, Utah 84116

REPORT OF WATER ENCOUNTERED DURING DRILLING

Well Name and Number LOCKERBY WELL NO. 1
Operator MOUNTAIN FUEL SUPPLY COMPANY
Address P.O. BOX 11368 SALT LAKE CITY, UTAH 84139
Contractor LOFFLAND BROTHERS COMPANY RIG 223
Address FARMINGTON, NEW MEXICO
Location NE 1/4, SW 1/4, Sec. 16, T. 34 S., R. 26 E., SAN JUAN County.

Water Sands:

	Depth: From - To -	Volume: Flow Rate or Head -	Quality: Fresh or Salty -
1.	<u>1445 TO 1460</u>	<u>APPROX 15 BWPH</u>	
2.	<u>2040 TO 2050</u>	<u>APPROX 15 BWPH</u>	
3.			
4.			
5.			

(Continue on Reverse Side if Necessary)

Formation Tops: NAVASO 1298', CHINLE 1967'

- NOTE: (a) Upon diminishing supply of forms, please inform this office.
(b) Report on this form as provided for in Rule C-20, General Rules and Regulations and Rules of Practice and Procedure, (see back of this form)
(c) If a water quality analysis has been made of the above reported zone, please forward a copy along with this form.



CHEM LAB

WATER ANALYSIS EXCHANGE REPORT

MEMBER Mountain Fuel Supply Company
 OPERATOR Mountain Fuel Supply Company
 WELL NO. Lockerby No. 1
 FIELD Wildcat
 COUNTY San Juan
 STATE Utah

LAB NO. 11702 REPORT NO. _____
 LOCATION Section 16-34S-26E
 FORMATION Navajo-Chinle
 INTERVAL 1445-2040
 SAMPLE FROM Air Drilling *& in some suds etc.*
 DATE January 3, 1974

REMARKS & CONCLUSIONS: Cloudy water with slightly cloudy filtrate, foamy.

Cations	mg/l	meq/l
Sodium	477	20.76
Potassium	788	20.17
Lithium	-	-
Calcium	6	0.30
Magnesium	1	0.08
Iron	-	-
Total Cations		41.31

Anions	mg/l	meq/l
Sulfate	170	3.54
Chloride	850	23.97
Carbonate	48	1.60
Bicarbonate	744	12.20
Hydroxide	-	-
Hydrogen sulfide	-	-
Total Anions		41.31

Total dissolved solids, mg/l 2706
 NaCl equivalent, mg/l 2469
 Observed pH 8.7

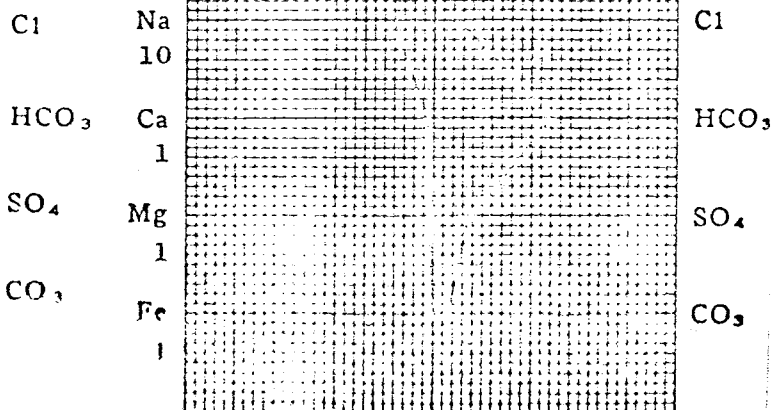
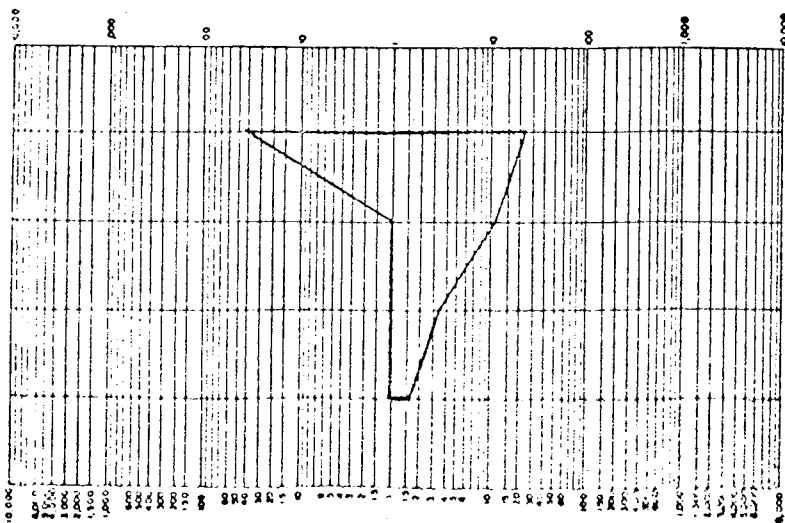
Specific resistance @ 65° F.:
 Observed 2.80 ohm-meters
 Calculated 2.45 ohm-meters

WATER ANALYSIS PATTERNS

MEQ per unit

LOGARITHMIC

STANDARD



(Na value in above graphs includes Na, K, and Li)
 NOTE: Mg/l = Milligrams per liter Meq/l = Milliequivalents per liter
 Sodium chloride equivalent by Dunlap & Hawthorne calculation from components

Clare Adams

Mt. Fuel

Lockery #1

PM 10-2

1/7/74

sec 16 T34S R26E

San Jan

Top top:

Dakota - Moccasin - Se孚ce

summit - 818

Curtis - 1037

Entrada - 1121

Carmel - 1266

Navajo - 1298

Haystack - 1565 *Marking Station*

Wingate - 1741

Chenier - 1967

Shinarump - 2541

Wendover - 2620

Cochise - 2720

Knecher Fuel - 4353

Parade - 4869

Up. Lsng - 5478 ~~5478~~

Lower Lsng - 5669

B. Marker - 5803

Desert Creek - 5876

Sal - 6020

T. 3 - 6050

A. B. - 6791

10 $\frac{3}{4}$ - 410

4 $\frac{1}{2}$ - 6049

4500' top of Crest B.L.

Ref. 6006 to 6022

Desert Creek +

5970 to 5990

total 7574. 200

No water

Ref. 5878 - 86

Top of Desert Creek

B.P. Gas - 7.5 ft. 2

no water

Ref. 5700 - 5800 to

5762

Lower Lsng - tested

twice - 17022

and 12 ft. of

no water

Proposed to be *Upper Lsng.*

type of

Parker B.P. at 5860

8 $\frac{5}{8}$ " at 2712 -

base of Moccasin?

210' or -

B.L. - from top of Mocc.

? Not to cut.

④ if cut - 100' at stat

⑤ 100' in core but 75' at

① Cement on top of B.P.

c 5860 up above top ref.

② 100' cement plug, top of

stat \approx \pm 4500' up to

top of Permian - Penn.

(top of Knecher Trail)

Mad below plays.

③ 100' cement plug at

base of 8 $\frac{5}{8}$ - 73' in 525' at

④ - 100' in 8 $\frac{5}{8}$ and

Poor 400' plug with 8 $\frac{5}{8}$ - 10 $\frac{3}{4}$ inches / marker - Mad below plays.

From: C. R. Owen
To: T. M. Colson

Rock Springs, Wyoming
February 12, 1974

Tentative Plan to Complete
and/or Plug and Abandon
Lockerby Well No. 1
San Juan County, Utah

This well is presently temporarily abandoned. There are five potentially productive zones in this well. Four of these were perforated and tested during the completion operations. After reviewing DST reports prepared by Halliburton services, it is felt the bottom three zones should be retested due to plugging of the test tool.

The fifth zone, from 5644 feet to 5660 feet KBM should be perforated and tested. This zone has not been previously tested.

If the above recommended DSTs and recompletion operations prove the well to be non-productive, the well will be plugged and abandoned.

The following is a tentative plan to accomplish the above tests and plugging operations.

1. Rig up contract workover rig. Mud pump and tanks will be required.
2. The wellbore is full of 8.9-pound/gallon drilling mud and a bridge plug has been set above the top perforations. Open tubing and casing to atmosphere to bleed off any trapped pressure.
3. Remove upper portion of wellhead to 6-inch 3000 psi Type "B" tubing spool. Install a hydraulically operated double gate blowout preventer. The BOP should be equipped with blind rams on bottom and 2-3/8-inch O.D. tubing rams on top. Pull and stand tubing in derrick.
4. Pick up six 3-1/8-inch drill collars and run 3-3/4-inch rock bit on 2-3/8-inch O.D. tubing to drill out Baker Model "N" (at 5735 feet KB) and Baker Model "NC" (at 5860 feet KB) bridge plugs. Water will be added to mud in wellbore and used as drilling fluid. It will be necessary to clean out wellbore to plug back total depth at 6026 feet KB. Pull tubing and stand about 5850 feet in derrick. Lay down remainder of tubing.

5. Pick up hookwall test tool and run in hole to about 5850 feet KB. Run PDST No. 5 on three lower zones at 5878 to 5886 feet, 5974 to 5990 feet, and 6008 to 6022 feet KBM. Suggested flow and shut-in times are as follows:

IF - 30 minutes, ISI - 60 minutes, FF - 120 minutes or until well stabilizes,
FSI - 180 minutes

Pull test string and stand tubing in derrick.

6. If test proves zones to be unproductive, a Baker Model "N" bridge plug will be set at 5725 feet KBM.

7. Rig up Schlumberger to perforate the following zone:

5644 feet to 5660 feet KBM

Perforate with two holes per foot Hyper Jet shots. A total of 16 feet will be perforated with 32 holes. The above perforating depths are taken from the Schlumberger sidewall neutron log run December 17, 1973 and should be correlated with the Schlumberger PDC log prior to shooting. Record any pressure after perforating.

8. Pick up a Halliburton test tool and packer dressed for 4-1/2-inch O.D., 10.50-pound casing. Run in hole and set packer at approximately 5614 feet KB or 30 feet above top perforations. Run production DST No. 6 on above perforations. Suggested flow and shut-in times are as follows:

IF - 30 minutes, ISI - 60 minutes, FF - 120 minutes, FSI - 180 minutes

Pull and lay down test tools. Stand tubing in derrick

Note: If this zone is non-productive or wet, proceed with the following plan to pull casing and plug and abandon well.

9. Rig up McCullough and set a Baker Model "N" bridge plug at 5600 feet.

10. Pick up 4-1/2-inch O.D., 10.50-pound casing spear. Pick up one joint of 3-1/2-inch O.D. drill pipe and run into 4-1/2-inch O.D. casing. Pick up casing and remove slips in wellhead. Rig up McCullough to run free point on casing. Free point should be about 4400 feet KBM.
11. Shoot off casing at free point and pull 4-1/2-inch O.D. casing. Lay casing down.
12. Run tubing to 50 feet below top of 4-1/2-inch casing stub. Set 100 foot cement plug. 35 sacks of Regular "Type "G" cement will be required. Note: A plug across the Honaker Trail may be required.
13. Pull and lay down tubing to 2750 feet KBM. Set a 100 foot cement plug at the base of 8-5/8-inch O.D. casing. Set plug with 75 feet cement in pipe and 25 feet cement in open hole. 35 sacks of cement will be required.
14. Rig up to pull 8-5/8-inch O.D. casing. Run spear for 8-5/8-inch O.D. casing and pick up casing. Remove casing slips. Run free point and cut off casing. Pull and lay down 8-5/8-inch O.D. casing.
15. Run tubing to top of 8-5/8-inch O.D. casing. Set 100 foot cement plug (50 feet cement in pipe, 50 feet cement out of casing). 45 sacks cement will be required.
16. Pull and lay down tubing to 461 feet KBM and set 100 foot cement plug at base of 10-3/4-inch O.D. casing. Set plug with 50 feet cement in pipe and 50 feet cement out of pipe. 45 sacks cement will be required.
17. Set 10 sack cement plug at surface and erect a regulation dry hole marker.
Note: Drilling mud will be placed between cement plugs.
18. Release contract workover rig.

GENERAL INFORMATION

I. Summary of current plug required:

Plug No. 1 - 5735 feet to 5335 feet KB - 30 sacks

Plug No. 2 - 100 foot plug - top of 4-1/2-inch O.D. casing

Plug No. 3 - 4400 feet to 4300 feet KB - 35 sacks - Honaker Formation (Top 4353)

Plug No. 4 - 2740 feet to 2640 feet KB - 35 sacks - base of 8-5/8-inch casing

Plug No. 5 - 100 foot plug - top of 8-5/8-inch O.D. casing

Plug No. 6 - 461 feet to 361 feet KB - 45 sacks - base of 10-3/4-inch casing

Plug No. 7 - 30 feet to 0 feet KB - 10 sacks - surface

STATE OF UTAH
OIL & GAS CONSERVATION COMMISSION

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <u>Wildcat</u>		5. LEASE DESIGNATION AND SERIAL NO. ML - 27096
2. NAME OF OPERATOR Mountain Fuel Supply Company		6. IF INDIAN, ALLOTTEE OR TRIBE NAME -
3. ADDRESS OF OPERATOR P. O. Box 1129, Rock Springs, Wyoming 82901		7. UNIT AGREEMENT NAME -
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface 2097' FSL, 2067' FWL NE SW		8. FARM OR LEASE NAME Lockerby
14. PERMIT NO. API 43-037-30130		9. WELL NO. 1
15. ELEVATIONS (Show whether DF, RT, GR, etc.) KB 6792.50' GR 6779'		10. FIELD AND POOL, OR WILDCAT Wildcat
16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data		11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA NE SW 16-34S-26E., SLB&M
17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*		12. COUNTY OR PARISH San Juan
18. STATE Utah		13. COUNTY OR PARISH San Juan

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF ☐FRACTURE TREAT ☐SHOOT OR ACIDIZE ☐REPAIR WELL ☐(Other) Temporarily abandonPULL OR ALTER CASING ☐MULTIPLE COMPLETE ☐ABANDON* ☐CHANGE PLANS ☐☒

SUBSEQUENT REPORT OF:

WATER SHUT-OFF ☐FRACTURE TREATMENT ☐SHOOTING OR ACIDIZING ☐(Other) Supplementary history

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

REPAIRING WELL ☐ALTERING CASING ☐ABANDONMENT* ☐☒

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

TD 6050', FBD 5735', rig released 1-1-74, well temporarily abandoned.

Spudded 11-18-73, set 395.88' net, 399.13' gross of 10-3/4"OD, 32.75#, H-40, casing at 411.00' with 320 sacks of cement.

Set 2699.50' net, 2722.50' gross of 8-5/8"OD, 32#, K-55, casing at 2714.62' KBM with 210 sacks of cement.

DST #1: 5651-5674', Ismay, IO 1/2 hr, ISI 1 1/2 hrs, FO 3 hrs, FSI 3 hrs, opened weak increased to strong in 5 minutes, reopened good increase to very strong, no gas, recovered 25' mud, IHP 2612, IOFP's 27-27, ISIP 398, FOFP's 27-27, FSIP 2138, FHP 2586.

DST #2: 5768-5831', Ismay, IO 1/2 hr, ISI 1 1/2 hrs, FO 2 hrs, FSI 3-3/4 hrs, opened good, gas in 10 minutes, 1/4 hr 110 Mcf, 1/2 hr 98 Mcf, reopened, 1/4 hr 170 Mcf, 1/2 hr 75 Mcf (1/2" orifice), 2 hrs 75 Mcf, recovered 310' gas cut mud.

IHP 2668, IOFP's 108-108, ISIP 2029, FOFP's 54-108, FSIP 1869, FHP 2668.

DST #3: 5920-5960', Desert Creek, IO 1/2 hr, ISI 1 1/2 hrs, FO 2 hrs, FSI 2 1/2 hrs, opened weak on both openings, no gas, recovered 1' mud, IHP 2718, IOFP's 27-27, ISIP 54, FOFP's 27-27, FSIP 54, FHP 2718.

Set 6036.50' net, 6084.25' gross of 4 1/2"OD, 10.5#, K-55, casing at 6050' KBM with 350 sacks of cement.

- Continued on reverse

18. I hereby certify that the foregoing is true and correct

SIGNED

BW Croft

TITLE

Vice President,

Gas Supply Operations

DATE Feb. 22, 1974

(This space for Federal or State office use)

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

Instructions

General: This form is designed for submitting proposals to perform certain well operations, and reports of such operations when completed, as indicated, on Federal and Indian lands pursuant to applicable Federal law and regulations, and, if approved or accepted by any State, on all lands in such State, pursuant to applicable State law and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office.

Item 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

Item 17: Proposals to abandon a well and subsequent reports of abandonment should include such special information as is required by local Federal and/or State offices. In addition, such proposals and reports should include reasons for the abandonment; data on any former or present productive zones, or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, method of parting of any casing, liner or tubing pulled and the depth to top of any left in the hole; method of closing top of well; and date well site conditioned for final inspection looking to approval of the abandonment.

Perforated from 5974' to 5990' and 6008' to 6022' with 2 holes per foot, made PDST #1.

PDST #1: Desert Creek perfs 5974-6022' gross, IO $\frac{1}{2}$ hr, ISI 1 hr, FO 2 hrs, FSI 31 hrs, opened medium, gas in 5 minutes, dead in 20 minutes, reopened medium, gas at once not enough to gauge, dead in 1 hr, tool did not shut in on 2nd SI, recovered 216' gas cut mud. IHP 2747, IOFP's 94-121, ISIP 1869, FOFP's 121-148, FSIP 175, FHP 2747.

Perforated from 5878' to 5886' with 2 holes per foot, made PDST #2.

PDST #2: Perfs 5878-6022' gross, IO 1 hr, ISI 1 hr, FO 2 hrs, FSI 2 hrs, opened strong, gas in 9 minutes not enough to gauge, reopened gas at once not enough to gauge, dead in $\frac{1}{2}$ hr, recovered 558' gas cut mud, IHP 2681, IOFP's 121-405, ISIP 779, FOFP's 606-619, FSIP 686, FHP 2641.

Set Baker NC bridge plug at 5860', perforated from 5758' to 5782' with 2 holes per foot, made PDST #3 and PDST #4.

PDST #3: Perfs 5758-5782', considered test mis-run.

PDST #4: Perfs 5758-5782', IO $3\frac{1}{2}$ hrs, ISI 4 hrs, opened strong, gas in 5 minutes, $\frac{1}{4}$ hr 60 Mcf, 1 hr 15 Mcf, 3 hrs 12 Mcf, $3\frac{1}{2}$ hrs 12 Mcf, recovered 270' gas cut mud, IHP 2588, IFP's 81-94, SIP 1776, FHP 1776.

Landed tubing, installed wellhead, displaced water from wellbore with 3300 gallons 28% HCL, pumped 2700 gallons 28% HCL, displaced acid with drip oil, flowed spent acid water to pit, pumped nitrogen unloading acid water, gas not enough to gauge, pulled tubing, ran Baker model N bridge plug and set at 5735', no casing pulled.

Verbal approval was granted by Mr. Feight to temporarily abandon this well on 12-31-73.

SUBMIT IN DUPLICATE*

STATE OF UTAH
OIL & GAS CONSERVATION COMMISSION

(See other instructions on reverse side)

WELL COMPLETION OR RECOMPLETION REPORT AND LOG *

1a. TYPE OF WELL: OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> DRY <input type="checkbox"/> Other <u>Temp. Abandoned</u>				5. LEASE DESIGNATION AND SERIAL NO. <u>ML-27096</u>	
b. TYPE OF COMPLETION: NEW WELL <input checked="" type="checkbox"/> WORK OVER <input type="checkbox"/> DEEP-EN <input type="checkbox"/> PLUG BACK <input type="checkbox"/> DIFF. RESVR. <input type="checkbox"/> Other _____				6. IF INDIAN, ALLOTTEE OR TRIBE NAME -	
2. NAME OF OPERATOR <u>Mountain Fuel Supply Company</u>				7. UNIT AGREEMENT NAME -	
3. ADDRESS OF OPERATOR <u>P. O. Box 1129, Rock Springs, Wyoming 82901</u>				8. FARM OR LEASE NAME <u>Lockerby</u>	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)* At surface <u>2097' FSL, 2067' FWL NE SW</u> At top prod. interval reported below At total depth API No. <u>43-037-30130</u>				9. WELL NO. <u>1</u>	
14. PERMIT NO. _____ DATE ISSUED _____				10. FIELD AND POOL, OR WILDCAT <u>Wildcat</u>	
15. DATE SPUDDED <u>11-18-73</u>				11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA <u>NE SW 16-34S-26E., SLB&M</u>	
16. DATE T.D. REACHED <u>12-17-73</u>				12. COUNTY OR PARISH <u>San Juan</u>	
17. DATE COMPL. (Ready to prod.) <u>1-1-74</u>				13. STATE <u>Utah</u>	
18. ELEVATIONS (DF, RKB, RT, GR, ETC.)* <u>KB 6792.50' GR 6779'</u>				19. ELEV. CASINGHEAD -	
20. TOTAL DEPTH, MD & TVD <u>6050'</u>		21. PLUG, BACK T.D., MD & TVD <u>5735'</u>		22. IF MULTIPLE COMPL., HOW MANY* →	
23. INTERVALS DRILLED BY →				24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)* <u>Temporarily abandoned ✓</u>	
25. WAS DIRECTIONAL SURVEY MADE No				26. TYPE ELECTRIC AND OTHER LOGS RUN <u>Sidewall Neutron-GR, BHC Acoustilog, Dual Induction Focused</u>	
27. WAS WELL CORED No				28. CASING RECORD (Report all strings set in well)	
CASING SIZE		WEIGHT, LB./FT.		DEPTH SET (MD)	
10"		32.75		411.00	
8-5/8		32		2714.62	
4-1/2		10.5		6050.00	
HOLE SIZE		CEMENTING RECORD		AMOUNT PULLED	
13-3/4		320		0	
9-7/8		210		0	
7-7/8		350		0	
29. LINER RECORD				30. TUBING RECORD	
SIZE		TOP (MD)		SIZE	
BOTTOM (MD)		SACKS CEMENT*		DEPTH SET (MD)	
SCREEN (MD)		PACKER SET (MD)			
31. PERFORATION RECORD (Interval, size and number) <u>5758-5782', 5878-5886', 5974-5990', 6008-6022', jet, 2 holes per foot</u>				32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.	
DEPTH INTERVAL (MD)		AMOUNT AND KIND OF MATERIAL USED			
<u>5758-5782'</u>		<u>6,000 gallons 28% HCL</u>			
33.* PRODUCTION					
DATE FIRST PRODUCTION		PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump)			WELL STATUS (Producing or shut-in)
<u>Temp. Abnd</u>					
DATE OF TEST		HOURS TESTED		CHOKE SIZE	
PROD'N. FOR TEST PERIOD		OIL—BBL.		GAS—MCF.	
→					
WATER—BBL.		GAS-OIL RATIO			
FLOW. TUBING PRESS.		CASING PRESSURE		CALCULATED 24-HOUR RATE	
				→	
OIL—BBL.		GAS—MCF.		WATER—BBL.	
OIL GRAVITY-API (CORR.)					
34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.) <u>Vented while testing.</u>					TEST WITNESSED BY
35. LIST OF ATTACHMENTS <u>Logs as above, Well Completion and Well Lithology to be sent at a later date.</u>					
36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records					
SIGNED <u>BW Craft</u>		TITLE <u>Vice President, Gas Supply Operations</u>		DATE <u>Feb. 22, 1974</u>	

* (See Instructions and Spaces for Additional Data on Reverse Side)

INSTRUCTIONS

General: This form is designed for submitting a complete and correct well completion report and log on all types of lands and leases to either a Federal agency or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office. See instructions on items 22 and 24, and 33, below regarding separate reports for separate completions.

If not filed prior to the time this summary record is submitted, copies of all currently available logs (drillers, geologists, sample and core analysis, all types electric, etc.), formation and pressure tests, and directional surveys, should be attached hereto, to the extent required by applicable Federal and/or State laws and regulations. All attachments should be listed on this form, see item 35.

Item 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

Item 18: Indicate which elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments. **Items 22 and 24:** If this well is completed for separate production from more than one interval zone (multiple completion), so state in item 22, and in item 24 show the producing interval, or intervals, top(s), bottom(s) and name(s) (if any) for only the interval reported in item 33. Submit a separate report (page) on this form, adequately identified, for each additional interval to be separately produced, showing the additional data pertinent to such interval.

Item 29: "Sacks Cement": Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool.

Item 33: Submit a separate completion report on this form for each interval to be separately produced. (See instruction for items 22 and 24 above.)

37. SUMMARY OF POROUS ZONES: SHOW ALL IMPORTANT ZONES OF POROSITY AND CONTENTS THEREOF; CORDED INTERVALS; AND ALL DRILL-STEM TESTS, INCLUDING DEPTH INTERVAL TESTED, CUSHION USED, TIME TOOL OPEN, FLOWING AND SHUT-IN PRESSURES, AND RECOVERIES			38. GEOLOGIC MARKERS		
FORMATION	TOP	BOTTOM	NAME	MEAS. DEPTH	TRUE VERT. DEPTH
			Log tops:	Surface	
			Dakota	818'	
			Summerville	1121	
			Entrada	1266	
			Carmel	1298	
			Navajo	1565	
			Kayenta	1741	
			Wingate	1967	
			Chinle	2541	
			Shinarump	2620	
			Moenkopi	2720	
			Cutler	4353	
			Honaker Trail	4869	
			Paradox	5478	
			Upper Ismay	5689	
			Lower Ismay	5803	
			"B" Zone	5876	
			Desert Creek	6020'	
			Salt		

P. W.

FEB 26 1974

John Colson - Lockaby - 5/19/74
Qtr Fuel - San Juan Co. → Geologic top already set in
B.P. @ 5600' (perf all below)

4½ to T.D.

PC

35 st Cement - on top of stab (in & out)

↓
≈ 4400 to 4500

↳ if below set 35 st from 4300-4400

↓
35 st @ 8 $\frac{5}{8}$ → 2640 to 2740' - $\frac{1}{2}$ in $\frac{1}{2}$ out
↓
2714' top of Honda Fuel

8 $\frac{5}{8}$ = free point ≈ 1500' - Cat

set 35 st on stab - $\frac{1}{2}$ in $\frac{1}{2}$ out

45 st set of 10 $\frac{3}{4}$ " bore - 361 to 461'

set one at surface / marker / - mud bottom plug.

JMB

STATE OF UTAH
OIL & GAS CONSERVATION COMMISSION

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input checked="" type="checkbox"/> Wildcat		5. LEASE DESIGNATION AND SERIAL NO. ML - 27096	
2. NAME OF OPERATOR Mountain Fuel Supply Company		6. IF INDIAN, ALLOTTEE OR TRIBE NAME ---	
3. ADDRESS OF OPERATOR P. O. Box 1129, Rock Springs, Wyoming 82901		7. UNIT AGREEMENT NAME ---	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface 2097' FSL, 2067' FWL NE SW		8. FARM OR LEASE NAME Lockerby	
14. PERMIT NO. API 43-037-30130		9. WELL NO. 1	
15. ELEVATIONS (Show whether DF, RT, GR, etc.) KB 6792.50' GR 6779'		10. FIELD AND POOL, OR WILDCAT Wildcat	
		11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA NE SW 16-34S-26E. SLB&M	
		12. COUNTY OR PARISH San Juan	
		13. STATE Utah	

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF ☐FRACTURE TREAT ☐SHOOT OR ACIDIZE ☐REPAIR WELL ☐(Other) ☐PULL OR ALTER CASING ☐MULTIPLE COMPLETE ☐ABANDON* ☐CHANGE PLANS ☐

SUBSEQUENT REPORT OF:

WATER SHUT-OFF ☐FRACTURE TREATMENT ☐SHOOTING OR ACIDIZING ☐(Other) ☐REPAIRING WELL ☐ALTERING CASING ☐ABANDONMENT* ☒

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

TD 6050', PBD 0', rig released May 23, 1974, well plugged and abandoned as follows:

Plug No. 1: 3968-3868', 35 sacks

Plug No. 2: 2740-2640', 35 sacks

Plug No. 3: 960-860', 45 sacks

Plug No. 4: 460-360', 45 sacks

Plug No. 5: 10 sacks into top of 10" surface pipe.

A regulation abandonment marker will be installed and the location cleaned at a later date.

FINAL REPORT.

18. I hereby certify that the foregoing is true and correct

SIGNED

Bob Croft

TITLE

VICE PRESIDENT
GAS SUPPLY OPERATIONS

DATE August 7, 1974

(This space for Federal or State office use)

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

STATE OF UTAH
OIL & GAS CONSERVATION COMMISSION

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals.)

1. <input type="checkbox"/> OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER Wildcat		5. LEASE DESIGNATION AND SERIAL NO. ML - 27096
2. NAME OF OPERATOR Mountain Fuel Supply Company		6. IF INDIAN, ALLOTTEE OR TRIBE NAME -
3. ADDRESS OF OPERATOR P. O. Box 1129, Rock Springs, Wyoming 82901		7. UNIT AGREEMENT NAME -
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface 2097' FSL, 2067' FWL NE SW		8. FARM OR LEASE NAME Lockerby
14. PERMIT NO. API # 43-037-30130		9. WELL NO. 1
15. ELEVATIONS (Show whether DF, RT, GR, etc.) KB 6792.50' GR 6779'		10. FIELD AND POOL, OR WILDCAT Wildcat
		11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA NE SW 16-34S-26E., SLB&M
		12. COUNTY OR PARISH San Juan
		13. STATE Utah

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF ☐FRACTURE TREAT ☐SHOOT OR ACIDIZE ☐REPAIR WELL ☐(Other) ☐PULL OR ALTER CASING ☐MULTIPLE COMPLETE ☐ABANDON* ☒CHANGE PLANS ☐

SUBSEQUENT REPORT OF:

WATER SHUT-OFF ☐FRACTURE TREATMENT ☐SHOOTING OR ACIDIZING ☐(Other) Supplementary history ☒REPAIRING WELL ☐ALTERING CASING ☐ABANDONMENT* ☐

(NOTE: Report results of multiple completion on Well
(completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.) *

TD 6050'.

Rigged up work over unit on 5-9-74, drilled and pushed bridge plug, fished, set bridge plug at 5908', made PDST #5 & 6, set bridge plug at 5723', perforated from 5644' to 5660' with 2 holes per foot, made PDST # 7, 8, & 9, set bridge plug at 5580', recovered 3913' of 4½" casing set 2 cement plugs, recovered 933' of 8-5/8" casing, completed plugging well, rig released 5-23-74.

PDST #5: Perfs 5878-5886', mis-run, test tool plugged.

PDST #6: Perfs 5878-5886', IO ½ hr, ISI 1½ hrs, FO 1 hr, FSI 3 hrs, opened good decreased to weak, reopened fair, no gas, recovered 20' water, IHP 2640, IOFP's 0-0, ISIP 1046, FOFP's 0-0, FSIP 566, FHP 2640.

PDST #7: Perfs 5644-5660', mis-run, tool plugged with rubber.

PDST #8: Perfs 5644-5660', mis-run, opened test tool and mud in annulus dropped after 2 mins.

PDST #9: Ismay perfs 5644-5660', IO ½ hr, ISI 2 hrs, FO 52 minutes, FSI 2 hrs, opened weak increasing to strong, reopened strong, gas in 5 minutes, 6 minutes 30 Mcf, 25 minutes 3 Mcf, decreased to very weak in 52 minutes, recovered 90' water, IHP 2123, IOFP's 27-27, ISIP 1551, FOFP's 27-27, FSIP 2004, FHP 2123. CIBP's at 5908', 5723' & 5580'.

- Contined on reverse -

18. I hereby certify that the foregoing is true and correct

SIGNED

BW Croft

TITLE

Vice President,
Gas Supply Operations

DATE

Aug. 7, 1974

(This space for Federal or State office use)

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

Instructions

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Item 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

Item 17: Proposals to abandon a well and subsequent reports of abandonment should include such special information as is required by local Federal and/or State offices. In addition, such proposals and reports should include reasons for the abandonment; data on any former or present productive zones, or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, method of parting of any casing, liner or tubing pulled and the depth to top of any left in the hole; method of closing top of well; and date well site conditioned for final inspection looking to approval of the abandonment.

Verbal approval was granted to plug and abandon the subject well by laying the following plugs:

Plug No. 1: 3968-3868', 35 sacks
Plug No. 2: 2740-2640', 35 sacks
Plug No. 3: 960- 860', 45 sacks
Plug No. 4: 460- 360', 45 sacks
Plug No. 5: 10 sacks into top of 10" surface pipe.

AUG 9 1974

7 25 4

COMPLETION REPORT

Well: Lockerby Well No. 1 Date: November 11, 1974

Area: Paradox Basin Lease No: ML-27096

☒ New Field Wildcat ☐ Development Well ☐ Shallower Pool Test

☐ New Pool Wildcat ☐ Extension ☐ Deeper Pool Test

Location: 2097 feet from South line, 2067 feet from West line
NE $\frac{1}{4}$ SW $\frac{1}{4}$

Section 16, Township 34 South, Range 26 East

County: San Juan State: Utah

Operator: Mountain Fuel Supply Company

Elevation: KB 6792.5' Gr 6779' Total Depth: Driller 6050' Log 6029'

Drilling Commenced: November 8, 1973 Drilling Completed: December 17, 1973

Rig Released: January 1, 1974 (drilling) Well Completed: May 23, 1974

May 23, 1974 (work over)

Sample Tops: (unadjusted)

Log Tops:

See Attached Sheet

Sample Cuttings: 30-foot samples from 650-2000 feet;
10-foot samples from 2000-6030 feet
Dry cuts in Rock Springs core lab, wet cuts to Amstrat.

Status: Dry and abandoned

Producing Formation: None

Perforations: 5644-5660'; 5758-5782'; 5878-5886'; 5974-5990'; 6008-6022'; 2 jet shots/foot

Stimulation: 5758-5782'; 6000 gallons 28% HCL

Production: None

Plug Back Depth: Surface

Plugs: #1 3968-3868' 35 sacks; #2 2740-2640' 35 sacks; #3 960-860' 45 sacks;
#4 460-360' 45 sacks; #5 10 sacks in surface casing

Hole Size: 9-7/8" from surface to 411.00'; ream to 13-3/4"; 9-7/8" from 411.00' to
2714.62'; 7-7/8" from 2714.62' to 6050.00'

Casing/Tubing: 10-3/4" surface casing @ 411.00'; 8-5/8" intermediate casing @ 2714.62'
(rec. 933'); 4-1/2" production casing @ 6050.00' (rec. 3913')

Logging - Mud: Core Lab - Ric Duncan, supervisor/consultant
5" field print 650-6030'; two 2" & two 5" final prints 650-6030'

Mechanical: Dresser Atlas

DIL (2689-6029') SNL (4250-6029') BHC (2689-6019')

Schlumberger

Cement Bond (400-2644')

Contractor: Loffland Brothers

(4300-5997')

Completion Report Prepared by: J. E. Bircher

Remarks: This well was drilled to test the porosity and carbonate development of the Ismay and Desert Creek zones. This well was temporarily abandoned January 1, 1974, reentered May 9, 1974 and plugged and abandoned May 23, 1974.

COMPLETION REPORT (cont.)

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Well: Lockerby Well No. 1

Area: Paradox Basin

Cored Intervals (recovery): None

Tabulation of Drill Stem Tests:

No.	Interval	IHP	IFP (min.)	ISIP (min.)	FFP (min.)	FSIP (min.)	FHP	Samples Caught	Remarks
**DST 1	5651-5674	2634	32-32 (30)	1722 (90)	28-34 (120)	2159 (180)	2612	Mud	Rec. 25' mud
DST 2	5768-5831	2682	115-84 (31)	2053 (89)	128-78 (120)	1890 (225)	2650	Mud	GTS in 10 min. @ 75 Mcf (stablized)
									rec. 340' mud
DST 3	5920-5960	2737	5-7 (30*)	53 (90*)	7-7 (120*)	38 (150*)	2727	Mud	NGTS, rec. 5' mud
PDST 1	5936-6029	2752	100-101 (90)	1836 (120)	62-181 (120*)	175 (?)	2703		GTS in 10 min. w/2 oz.si through 3/8"
									choke (6.6 Mcf) rec. 216' GCM
PDST 2	5843-6029	2655	131-258 (60*)	553 (60*)	499-765 (120*)	669 (120*)	2613		GTS in 9 min. TSTM, rec. 558' GCM
PDST 3	5720-5860	2634	182-124 (62)	1972 (88)	241-105 (121)	1847 (180)	2560		GTS in 4 min. w/85 psi through 3/8"
									choke (295 Mcf), rec. 210' GCM
PDST 4	5720-5860	2606	141-100 (210)	1791 (240)					GTS in 4 min. w/20 psi through 3/8"
									choke (97 Mcf) rec. 270' GCM
PDST 5	5878-5886								Misrun, test tool plugged
PDST 6	5878-5886	2643	34-19 (29)	1068 (92)	24-50 (61)	597 (178)	2531		Rec. 3' water
PDST 7	5644-5660								Misrun, tool plugged with rubber
PDST 8	5644-5660	1852					1852		Misrun, opened tool and mud in annulus
									dropped after 2 mins.
PDST 9	5644-5660	1991	46-46 (30)	1586 (125)	35-44 (52)	2033 (155)	2008		GTS in 5 min. on FF @ 30 Mcf (max)
									rec. 100' water

* Field Reported

** Pressures from bottom chart

SAMPLE TOPSLOG TOPS

Summerville	803'	Dakota	Surface
Curtis	1032'	Summerville	818'
Entrada	1112'	Entrada	1121'
Carmel	1266'	Carmel	1266'
Navajo	1302'	Navajo	1298'
Kayenta	1582'	Kayenta	1565'
Wingate	1756'	Wingate	1741'
Chinle	1964'	Chinle	1967'
Shinarump	2559'	Shinarump	2541'
Moenkopi	2644'	Moenkopi	2620'
Cutler	2694'	Cutler	2720'
Honaker Trail	4348'	Honaker Trail	4353'
Paradox	4907'	Paradox	4869'
Upper Ismay	5490'	Upper Ismay	5478'
Lower Ismay	5677'	Lower Ismay	5689'
"B" Marker	5813'	"B" Marker	5803'
Desert Creek	5888'	Desert Creek	5876'
Salt	6022'	Salt	6020'